



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,329	04/06/2000	AKIHIKO TAKAHASHI	105914	7938
25944	7590	03/24/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			DASTOURI, MEHRDAD	
		ART UNIT	PAPER NUMBER	
		2623		
DATE MAILED: 03/24/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/544,329	TAKAHASHI, AKIHIKO	
	Examiner Mehrdad Dastouri	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 January 2004.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 2,3 and 6-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 2, 3, and 6-10 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION***Response to Amendment***

1. Applicant's amendment filed January 5, 2004, has been entered and made of record.
2. 35 U.S.C. 112, second paragraph rejection of Claim 9 has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 10 are rejected under 35 V.S.C. 103(a) as being unpatentable over Steinberg et al. (hereinafter Steinberg), U.S. 6,433,818.

As per Claim 3, Steinberg teaches an image-capturing apparatus comprising:
an image-capturing element that captures an image of a subject and generates electronic image information (Figure 1, Digital Camera 10);
a recording device that records the electronic image information that has been generated in a recording medium (Figure 6A, Element 100);
a registration device that registers inherent information with respect to a registrant (Figure 12, Column 5, Lines 39-42);

an information detection device that detects inherent information with respect to a user of the electronic image-capturing apparatus (Figure 12, Element 12; Column 5, Lines 43-54);

an information verification device that references the inherent information with respect to the user detected by said information detection device with the inherent information registered in said registration device (Figure 13; Column 5, Lines 43-54); and

a control device that allows an image-capturing operation to be performed on the electronic image-capturing apparatus (Figure 13, Element 210) if it is decided by said information verification device that the two sets of inherent information match (Figure 13; Column 5, Lines 43-54); and

a power control device having a switch to be set at a recording position, a reproduction position or an OFF position, that controls power ON/OFF (Figure 1, keypad 12 is utilized as an input device for inputting standard routine control commands. Recording-Reproducing-Off selector switch which also acts as an On/Off switch is an essential part pf all cameras that would have been obvious to be included in Steinberg digital camera.); wherein

said control device allows an image-capturing operation to be performed on the electronic image-capturing apparatus without requiring said information verification device to operate as long as said switch remains at said recording position (e.g., permit condition, Column 4, Lines 9-33) after said information verification device decides that the two sets of inherent information (both iris and epidermal, Column 8, Lines 40-43) match when said switch is at said recording position (Column 3, Lines 63-66. It is an obvious and a logical option to continue image-capturing operation when camera selector switch is at recording position while the granted permission based on biometric matching is effective. Conventionally, there is no need for a further biometric matching permission while the existing one is in effect and a selected mode of operation is not changed.).

It would have been obvious to one of ordinary skill in the art to include in the permit conditions of Steinberg digital camera a Recording-Reproducing-Off selector switch which inherently acts as an On/Off switch, and continue image-capturing operation when switch is at recording position while the granted permission based on biometric matching is effective because it is a well known procedure and a conventional design choice routinely implemented in image capturing devices, in particular, the completely programmable Steinberg digital camera (Column 3, Lines 63-67, Column 4, Lines 1-33).

As per Claim 10, Steinberg teaches an image-capturing apparatus comprising:

- an image-capturing element that captures an image of a subject and generates electronic image information (Figure 1, Digital Camera 10);
- a recording device that records the electronic image information that has been generated in a recording medium (Figure 6A, Element 100);
- a registration device that registers inherent information with respect to a registrant (Figure 12, Column 5, Lines 39-42);
- an information detection device that detects inherent information with respect to a user of the electronic image-capturing apparatus (Figure 12, Element 12; Column 5, Lines 43-54);
- an information verification device that references the inherent information with respect to the user detected by said information detection device with the inherent information registered in said registration device (Figure 13; Column 5, Lines 43-54); and
- a control device that allows an image-capturing operation to be performed on the electronic image-capturing apparatus (Figure 13, Element 210) if it is decided by said

Art Unit: 2623

information verification device that the two sets of inherent information match (Figure 13; Column 5, Lines 43-54).

Steinberg's restriction of reproduction is only limited to an alternate embodiment of camera operation and is not generalized for other embodiments of image capturing and reproduction.

Since Steinberg discloses a camera that is programmable, it would have been obvious to include the capability wherein said control device allows a reproduction operation regardless of results of verification performed by said information verification device when the electronic image information recorded in said recording medium is reproduced (Column 3, Lines 63-66).

It would have been obvious to one of ordinary skill in the art not to require biometric verification in all picture-taking situations by programming the camera for use in particular situations. For instance, if you were at a large extended family gathering or if you were somewhere foreign and you wanted a stranger to take your picture in front of a landmark, you would not want to take the time to register your entire extended family or each stranger in order to quickly take the picture. The photo opportunity may pass by the time you register the unknown user.

5. Claims 2 and 6,7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg et al. (Hereinafter Steinberg), U.S. 6,433,818, in view of Rhoads, U.S. 5,841,886.

As per Claim 1, Steinberg teaches an image-capturing apparatus comprising:
an image-capturing element that captures an image of a subject and generates electronic image information (Figure 1, Digital Camera 10);

a recording device that records the electronic image information that has been generated in a recording medium (Figure 6A, Element 100);

a registration device that registers inherent information with respect to a registrant (Figure 12, Column 5, Lines 39-42);

an information detection device that detects inherent information with respect to a user of the electronic image-capturing apparatus (Figure 12, Element 12; Column 5, Lines 43-54);

an information verification device that references the inherent information with respect to the user detected by said information detection device with the inherent information registered in said registration device (Figure 13; Column 5, Lines 43-54); and

a control device that allows an image-capturing operation to be performed on the electronic image-capturing apparatus (Figure 13, Element 210) if it is decided by said information verification device that the two sets of inherent information match (Figure 13; Column 5, Lines 43-54).

Although Steinberg did not explicitly recite the watermarking limitation recited in the claim, he further disclose encrypting the captured image by adding (Figure 6A, Element 98; Figure 7) digital information related to the inherent information detected by said information detection device to the electronic image information that has been generated as a digital mark (The information added to the electronic image is a signature data that alternately is a password or a biometric signature data such as iris or fingerprint data (Column 5, Lines 55-67, Column 6, Lines 1-34).).

The encrypting methodology of Steinberg wherein a digital data (the biometric signature of the user) is added to the digital image information is an alternative procedure

Art Unit: 2623

for digital watermarking or adding digital information to digital images (In the absence of any specific claim limitation concerning the detailed procedure for watermarking).

Addition of digital data by utilizing both encryption or watermarking are subsets of steganographic techniques.

However, for further emphasis, The Examiner recites the teachings of Rhoads that explicitly disclose the watermarking alternative of this steganographic technique.

Rhoads discloses a security system for photographic identification wherein inherent information of the user (fingerprint data) is embedded into the digital photographic image for security and authentication purposes (Column 7, Lines 65-67, Column 8, Lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Steinberg's invention according to the teachings of Rhoads to add information related to the inherent information detected by said information detecting device to the electronic image information that has been generated as a digital watermark because it is a well known steganographic procedure routinely implemented in image processing for security purposes and protection of document from counterfeiting (Rhoads; Column 7, Lines 65-67, Column 8, Lines 1-5).

As per Claim 6, Steinberg teaches:

wherein the inherent information is registrant's fingerprint information (Column 6, Lines 32-35, Column 7, Lines 58-67); and said information detection device is constituted of a sensor that detects fingerprint information (Figure 12).

As per Claim 7, Steinberg teaches:

a grip used by the user to hold the electronic image capturing apparatus while capturing an image of a subject (Column 6, Lines 29-35), wherein said sensor is provided

Art Unit: 2623

at a position at which a finger of the user is naturally placed when the user holds said grip (Column 6, Lines 29-31, Figure 10).

As per Claim 9, Steinberg teaches:

said registration control device prohibits updating (it prohibits all use, Column 5, Lines 45-50) of contents of information registered in said registration device if it is decided there is inherent information registered in said registration device when said information verification device does not decide that two sets of inherent information match (Column 8, Lines 36-43).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-

Art Unit: 2623

2438. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEHRDAD DASTOURI
PRIMARY EXAMINER



Mehrdad Dastouri
Primary Examiner
Art Unit 2623
March 21, 2004